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Extracting GT Strength from (p,n) Experiments Correcting For Neutron Scattering MAURICE B. AUFDERHEIDE, STEWART D. BLOOM, *LLNL*, CHARLES D. GOODMAN, *IUCF* — Intermediate energy (p,n) reactions have been used to infer Gamow-Teller (GT) strength in a large variety of nuclei. The neutron energy is measured by time of flight over a long path and scattering from material along the path causes a low energy tail on each peak in the spectrum. We model the peak shape with a three parameter Monte-Carlo calculation which is incorporated in a peak fitting code. We describe this model and compare it with the use of purely empirical fits to the peak shape. We apply our method to (p,n) spectra from ^{13}C, ^{18}O, ^{26}Mg, and ^{90}Zr and compare our strength estimates with those derived from other fitting procedures. Work at Lawrence Livermore National Laboratory was performed under the auspices of the U.S. DoE under contract No. W-7405-ENG-48.

[X] Prefer Oral Session
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